

REMARK

Applicant respectfully requests reconsideration of this application as amended. Claims 22, 24, 35, 39, 42, and 46 have been amended; claims 21, 34, and 40 have been cancelled; claims 48 and 49 have been added; and claim 1 has been allowed. Therefore, claims 1, 22-33, 35-39, and 41-49 are now presented for examination.

In the Examiner's interview on November 16, 2001, the Examiner pointed out that claim 21 needed to be properly cancelled. Accordingly, Applicant has cancelled claim 21 and respectfully requests that this be entered.

Comments on Amended/New Claims

Each of the amended and new claims requires that compressed/encoded data be stored in an output buffer that is dynamically created and configured in accordance with characteristics of a communication channel.

Neither Nonoshita nor Barberis teaches or suggests or suggests dynamically created buffers, or buffers that are created in accordance with characteristics of a communication channel.

In Nonoshita, the buffers A 70 to D 73 (see FIG. 4) are predetermined, not dynamically created - the A buffer stores the image data on the high resolution side of an amount of four lines in the compressing process (column 5,

lines 37-39); the B buffer stores the compressed image data of a low resolution which is lower by one rank (column 5, lines 46-47); the C buffer stores the image data of an amount of two words (column 5, lines 58-59); and the D buffer holds the encoded data formed by the decoder (column 5, lines 66-67). Thus, Nonoshita does not teach dynamically created buffers, as required by the Applicant's invention as recited in the claims.

In Barberis, the output buffers are predetermined buffers, not dynamically created buffers. The buffers are labeled B₁-B_n, where n represents the number of paths for transmitting the data to a destination node (column 4, lines 20-42 "...selected buffer and a path extending therefrom..."). Thus, Barberis lacks dynamically created output buffers.

Furthermore, Barberis does not teach or suggest buffers that are created in accordance with one or more characteristics of a communications channel to be used for transmitting the data as required by each of the claims. Since the buffers are created according to characteristics of a communications channel, and the characteristics of a communications channel may change, each of the buffers may contain different data. Not only do the buffers of Barberis each contain the same data such that the data is transmitted via the output buffer associated with a path having the shortest calculated delay, but the existence of a given buffer does not depend on the characteristics of a communication channel, i.e., its associated path.

To further clarify the distinction, Barberis comprises multiple communication channels (i.e., paths) and data formatted in a single way, while the Applicant's invention as recited in the claims comprises a single communication channel and data formatted in potentially multiple ways. Consequently, there is no motivation in Barberis for dynamically creating output buffers that depend on the characteristics of a communication channel - since there are multiple communication channels that can be used to transmit the data, there is no need to configure the buffers. The data is simply transmitted from the buffer associated with the shortest calculated delay. In the Applicant's invention as recited in the claims, however, the buffers are configured according to the characteristics of the communications channel because there is only one communications channel. Thus, the buffers are optimized for the conditions.

As such, it is believed that neither of these references teaches or suggests the Applicant's invention as recited by the claims, and as such, the claims should be allowed as amended.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the Amendment and Remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests all previous rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if any matters can be clarified for the Examiner, or if there remains any issue with allowance of the case.

Request for an Extension of Time

The Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

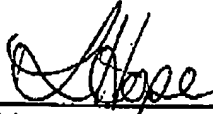
Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: December 17, 2001



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Version With Markings Showing Changes Made

Presented below are the amended claims in a marked version showing additions in underlining and deletions in brackets.

In the claims:

21. (Cancelled)

22. (Once Amended) An apparatus comprising:

an encoder for producing encoded real-time information;

a transmit reference buffer for storing a current transmit reference;

compression circuitry coupled to the encoder and to the transmit reference buffer for producing compressed data based upon the current transmit reference and the encoded real-time information;

a plurality of dynamically created output buffers coupled to the compression circuitry for storing the compressed data, each dynamically created output buffer being created and configured based upon one or more characteristics of a communication channel to be used for transmitting the encoded real-time information over a network; and

a network interface coupled to the plurality of dynamically created output buffers, the network interface for interfacing with [a] the network,

for determining a selected output buffer from the plurality of dynamically created output buffers and for transmitting data over the network from the selected output buffer, the selected output buffer containing compressed data which accommodates the one or more characteristics of the network better than compressed data in at least one other buffer of the plurality of dynamically created output buffers.

24. (Once Amended) An apparatus for transmitting real-time information over a network, the apparatus comprising:

an encoder for producing encoded real-time information;

a transmit reference buffer for storing a current transmit reference;

compression circuitry coupled to the encoder and to the transmit

reference buffer for producing compressed data based upon the current transmit reference and the encoded real-time information;

and

a plurality of dynamically created output buffers coupled to the

compression circuitry for buffering the compressed data, each of the plurality of dynamically created output buffers having contents and being created and configured based upon one or more characteristics of a communication channel to be used for

transmitting the encoded real-time information over a network, the

contents of a selected output buffer of the plurality of dynamically created output buffers to be transmitted onto a data communications channel of [a] the network based upon the one or more characteristics of the data communications channel.

34. (Cancelled)

35. (Once Amended) An apparatus comprising:

an encoder for producing encoded real-time information;

a transmit reference buffer for storing a current transmit reference;

compression circuitry coupled to the encoder and to the transmit reference buffer for producing compressed data based upon the current transmit reference and the encoded real-time information;

a plurality of dynamically created output buffers coupled to the compression circuitry for storing the compressed data, each dynamically created output buffer being created and configured based upon one or more characteristics of a communication channel to be used for transmitting the encoded real-time information over a network; and

a network interface coupled to the plurality of output buffers, the network interface for selecting a selected output buffer of the plurality of output buffers by determining, with reference to one or more

predetermined coding strategies, whether compressed data from the selected output buffer is appropriate for transmission to a receiving node.

39. (Once Amended) An apparatus comprising:

an encoder for producing encoded real-time information;

compression circuitry coupled to the encoder for producing compressed data based upon a previously stored transmit reference and the encoded real-time information;

a plurality of dynamically created output buffers coupled to the compression circuitry for storing the compressed data, each dynamically created output buffer being created and configured based upon one or more characteristics of a communication channel to be used for transmitting the encoded real-time information over a network; and

a network interface coupled to the plurality of dynamically created output buffers, the network interface transmitting compressed data from a selected output buffer of the plurality of dynamically created output buffers, the compressed data from the selected output buffer when used in conjunction with the previously stored transmit reference approximating a next frame expected by a receiving apparatus.

40. (Cancelled)

42. (Once Amended) A method of transmitting data over a network comprising:

encoding the data by determining the differences between the data and a transmit reference to produce differential data;

storing the differential data in a plurality of output buffers dynamically created based upon characteristics of a communication channel [being used to transmit] to be used for transmitting the differential data over the network;

selecting one of the plurality of output buffers as a current transmit buffer based upon current conditions of a communications channel in the network used to transmit the differential data; and

transmitting the differential data from the current transmit buffer over the network.

46. (Once Amended) An apparatus comprising:

an encoder for producing encoded real-time information;

compression circuitry coupled to the encoder for producing compressed data based upon a previously stored transmit reference and the encoded real-time information;

a plurality of dynamically created output buffers coupled to the compression circuitry for storing the compressed data, each buffer being configured in accordance with characteristics of a communication channel [being used to transmit] to be used for transmitting the encoded real-time information over a network; and

a network interface coupled to the plurality of output buffers, the network interface transmitting compressed data from a selected output buffer of the plurality of output buffers, the compressed data from the selected output buffer when used in conjunction with the previously stored transmit reference approximating a next frame expected by a receiving apparatus.

48.-49. (New)